

# EC-TYPE EXAMINATION CERTIFICATE



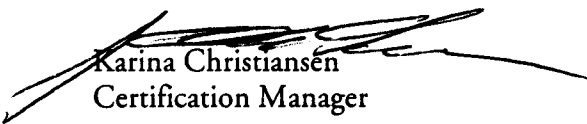
Equipment or Protective System intended for use  
in Potentially Explosive Atmospheres  
Directive 94/9/EC

- [3] EC-Type Examination Certificate Number: DEMKO 03 ATEX 134391X
- [4] Equipment or Protective System: GUARDIAN Switch
- [5] Manufacturer: Pyropress Engineering Company Ltd.
- [6] Address: Bell Close, Plympton, Plymouth, Devon, PL7 4JH, UK
- [7] This equipment or protective system and any acceptable variation there to is specified in the schedule to this certificate and the documents therein referred to.
- [8] UL International Demko A/S, notified body number 0539 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.
- The examination and test results are recorded in confidential report no. 134391
- [9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:  
EN 50014: 1997 E incl. A1+A2 EN 50020: 2002 E EN 50284:1999
- [10] If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.
- [11] This EC-Type examination certificate relates only to the design, examination and tests of the specified equipment or protective system in accordance to the Directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by the certificate.
- [12] The marking of the equipment or protective system shall include the following:

⊕ II 1G	EEx ia IIC T6 (-50°C to +78°C)
⊕ II 1G	EEx ia IIC T5 (-50°C to +93°C)
⊕ II 1G	EEx ia IIC T4 (-50°C to +128°C)

On behalf of UL International Demko A/S

Herlev, 2003-08-15

  
Karina Christiansen  
Certification Manager

## UL International Demko A/S

Lyskaer 8, P.O. Box 514  
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Telephone: +45 44856565  
Fax: +45 44856500

Certificate: 03 ATEX 134391X

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## Schedule

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[15]

#### Description of Equipment or protective system

The Guardian range consists of a single or dual switch, which is mounted inside an enclosure for increased functionality and protection. The housing can be manufactured from Stainless Steel, Aluminum or Polyphenylene Sulphide and provides suitable ingress protection for the intended application. The Guardian range is certified to be installed in a Zone 0 environment, when supplied from an approved Intrinsically Safe Interface located in the safe area.

#### Temperature range

The relation between ambient temperature and the assigned temperature class is as follows:

Ambient temperature range	Temperature class
-50 °C to +78 °C	T6
-50 °C to +93 °C	T5
-50 °C to +128 °C	T4

#### Electrical data

Intrinsically safe specifications:

$U_i$  : 28 V  
 $I_i$  : 93 mA  
 $P_i$  : 0,65 W  
 $L_i$  : 0 mH  
 $C_i$  : 0 nF

[16]

#### Report No.

Project Report No.: 134391-01 (Hazardous Location Testing)

#### Drawings:

Number	Date	Description
A3-M-9843	2003-04-29	IS Certification drawing issue A Guardian Switch

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# Schedule

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[17] Special conditions for safe use: (Category 1 Zone 0)

Aluminium may only be used when the ignition hazard assessment shows that there is no risk of ignition from incendive friction, impact or abrasion sparks

The equipment have been evaluated and found to be in compliance with EN 13463-1: 2001

[18] Essential Health and Safety Requirements

Concerning ESR this Schedule verifies compliance with the Ex standards only. The manufacturer's Declaration of Conformity declares compliance with other relevant Directives.

The manufacturer shall inform the notified body concerning all modifications to the technical documentation as described in ANNEX III to Directive 94/9/EC of the European Parliament and the Council of 23 March 1994.

On behalf of UL International Demko A/S

Herlev, 2003-08-15  
Revised 2003-10-07

  
Karina Christiansen  
Certification Manager

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